JVC

SERVICE MANUAL

AC POWER ADAPTER/CHARGER

AA-V15EG

SPECIFICATIONS

Power requirement	: AC 110 V to 240 V~, 50/60 Hz
Power consumption	: 23 W
Output	
Charge	: DC 8.5 V ⎓, 1.3 A
VTR	: DC 6.3 V ⎓, 1.8 A
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 140 (W) x 42 (H) x 68 (D) mm
Weight	: Approx. 300 g

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No. 86430
June 1998

Thank you for purchasing the JVC AA-V15EG AC Power Adapter/Charger. This unit provides DC power for the JVC Video Camera from a household AC outlet. It can be used to recharge or discharge the JVC battery pack for exclusive use with the JVC Video Camera. To avoid problems and obtain the best results, please read this instruction booklet carefully before use.

WARNING—
DANGEROUS VOLTAGE INSIDE

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
This unit should be used with AC 110 – 240 V~, 50/60 Hz only.
CAUTION:
To prevent electric shocks and fire hazards, do NOT use any other power source.

CAUTION:
When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from AC outlet.

CAUTION:
To prevent electric shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified service personnel.

NOTE:
The rating plate (Serial number plate) is on the bottom of the unit.

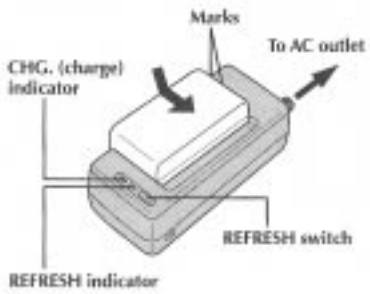
As an AC Power Adapter/Charger, the AA-V15EG is used exclusively with the JVC Video Camera.

CAUTIONS:
- If used near a radio, this unit may interfere with reception.
- Prevent inflammables, water and metallic objects from entering the unit.
- Do not disassemble or modify the unit.
- Do not apply shocks to the unit.
- Do not subject the unit to direct sunlight.
- Avoid using the unit in extremely hot or humid places.
- Avoid using the unit in places subject to vibrations.

A WORD ON THE EXCLUSIVE BATTERY PACKS
The battery packs are nickel-cadmium batteries and nickel-metal hydride batteries.
Give attention to the following to make the most of their characteristics.
For charging: 10°C to 35°C
For operating: 0°C to 40°C
For storing: –10°C to 30°C

This unit is produced to comply with Standard IEC Publ. 65.

CHARGING THE BATTERY PACK



1 SUPPLY POWER
Connect the charger's AC power cord to a wall outlet.

2 ATTACH BATTERY PACK
Align the marks and slide the battery pack in the direction of the arrow until it locks in place.

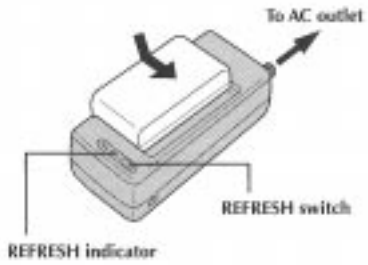
- The CHG. indicator begins blinking to indicate charging has started.

3 DETACH BATTERY PACK
When the CHG. indicator stops blinking but stays lit, charging is finished. Slide the battery pack opposite the direction of the arrow.

BATT. PACK	CHARGE	DISCHARGE
BN-V12U	approx. 1 hr. 10 min.	approx. 3 hrs. 30 min.
BN-V22U	approx. 2 hrs. 10 min.	approx. 7 hrs.
BN-V25U	approx. 2 hrs. 40 min.	approx. 10 hrs.

NOTES:
- *The recording time per charge is affected by such factors as the time spent in Record-Standby mode and the frequency of zooming. It is safer to have spare battery packs.*
- *Charging times are for fully discharged battery pack, and discharging times are for fully charged battery pack.*
- *Charging and discharging times vary according to the ambient temperature and the status of the battery pack.*
- *Remember to set the charge marker after charging a battery pack or after detaching a discharged one from your camcorder.*
- *High temperatures can damage the battery pack, so use only where good ventilation is available. Don't allow it to discharge in container, such as a bag.*
- *If you stop recharging or discharging part way through, make sure to remove the battery pack before unplugging the adapter's AC cord.*
- *Remove the battery pack from the adapter immediately after discharging.*
- *To avoid interference with reception, do not use the AC Power Adapter/Charger near a radio.*
- *Make sure you unplug the DC cord before charging or discharging the battery pack.*
- *The CHG. indicator may not light properly with a brand new battery pack, or with one that's been stored for an extended period. In this case, remove and reattach the battery pack and recharge it. The CHG. indicator should blink during recharging. If not, contact your nearest JVC dealer.*

USING THE REFRESH FEATURE



REFRESH

The AC power adapter features a REFRESH function that allows you to fully discharge the battery pack before recharging.
Perform the REFRESH function after no less than 5 chargings.

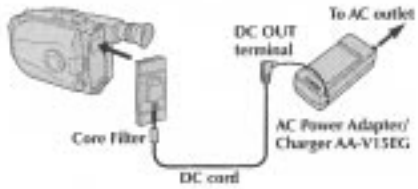
To discharge the battery . . .

..... attach the battery pack to the adapter as shown in the illustration. Then push REFRESH. The REFRESH indicator lights when discharging starts, and goes out when discharging is complete.

NOTES:

- *Perform the REFRESH function after no less than 5 chargings.*
- *While the AC Power Adapter/Charger's power cord is disconnected from the AC outlet, it is possible to discharge the battery by pressing the REFRESH switch. During that time, the AC Power Adapter/Charger does not charge the battery. When discharging is complete, detach the battery from the AC Power Adapter/Charger to store it.*

USING AC POWER



Use the AC Power Adapter (connect as shown in the illustration above).

NOTE:

The supplied AC Power Adapter/Charger features automatic voltage selection in the AC range from 110 V to 240 V.

SPECIFICATION

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Output	
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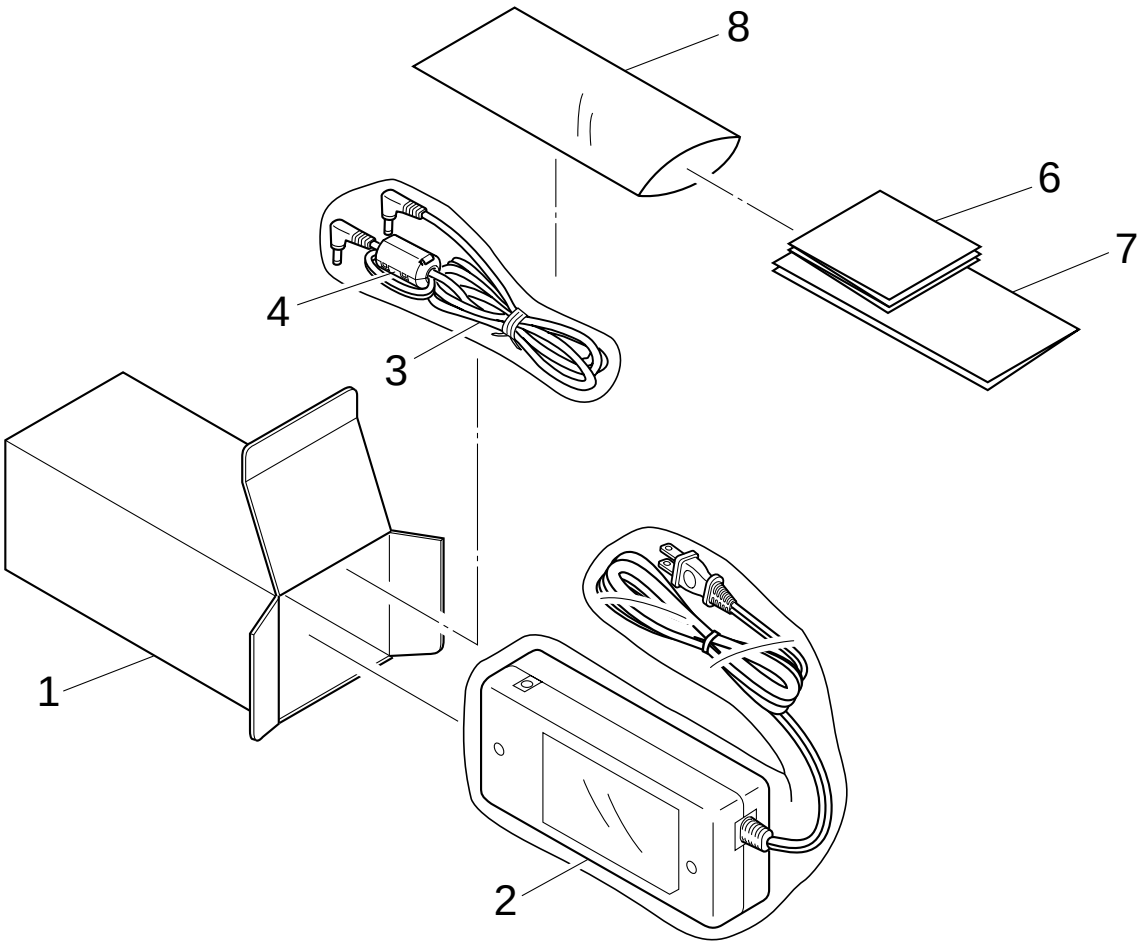
Charging system	: Constant current, peak detection, timer controlled
Dimensions	: 140 (W) x 42 (H) x 68 (D) mm
Weight	: Approx. 300 g

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

1. PACKING ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



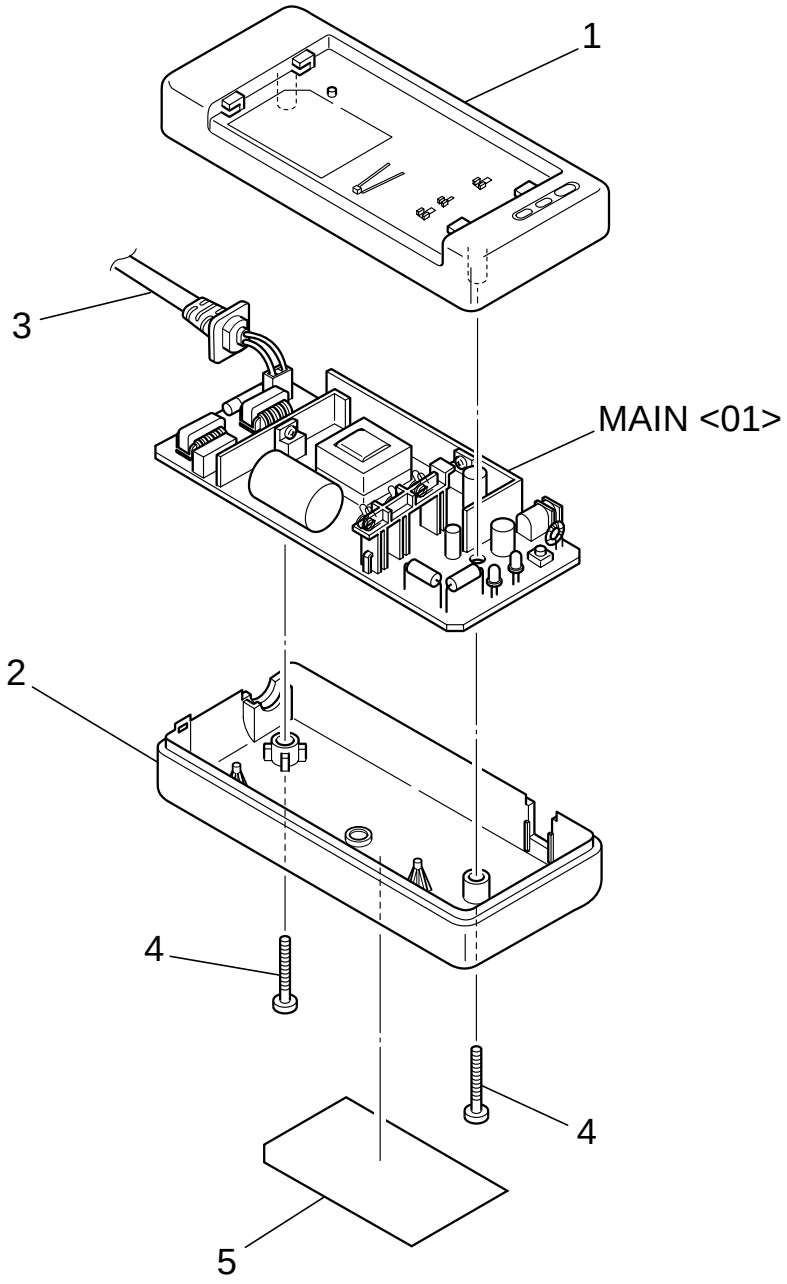
#REF No.	PART No.	PART NAME, DESCRIPTION

✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻✻

PACKING ASSEMBLY <M1>

	1	LY20359-001A	PACKING CASE
⚠	2	–	CABINET ASSEMBLY<M2>
	3	PEAC0243-02	DC PLUG CORD
	4	QQR0855-003	NOISE FILTER
	6	–	GUARANTEE CARD
⚠	7	LYT0207-001A	IB
	8	QPA01702505P	POLY BAG

2. CABINET ASSEMBLY <M2>



#REF No.	PART No.	PART NAME, DESCRIPTION

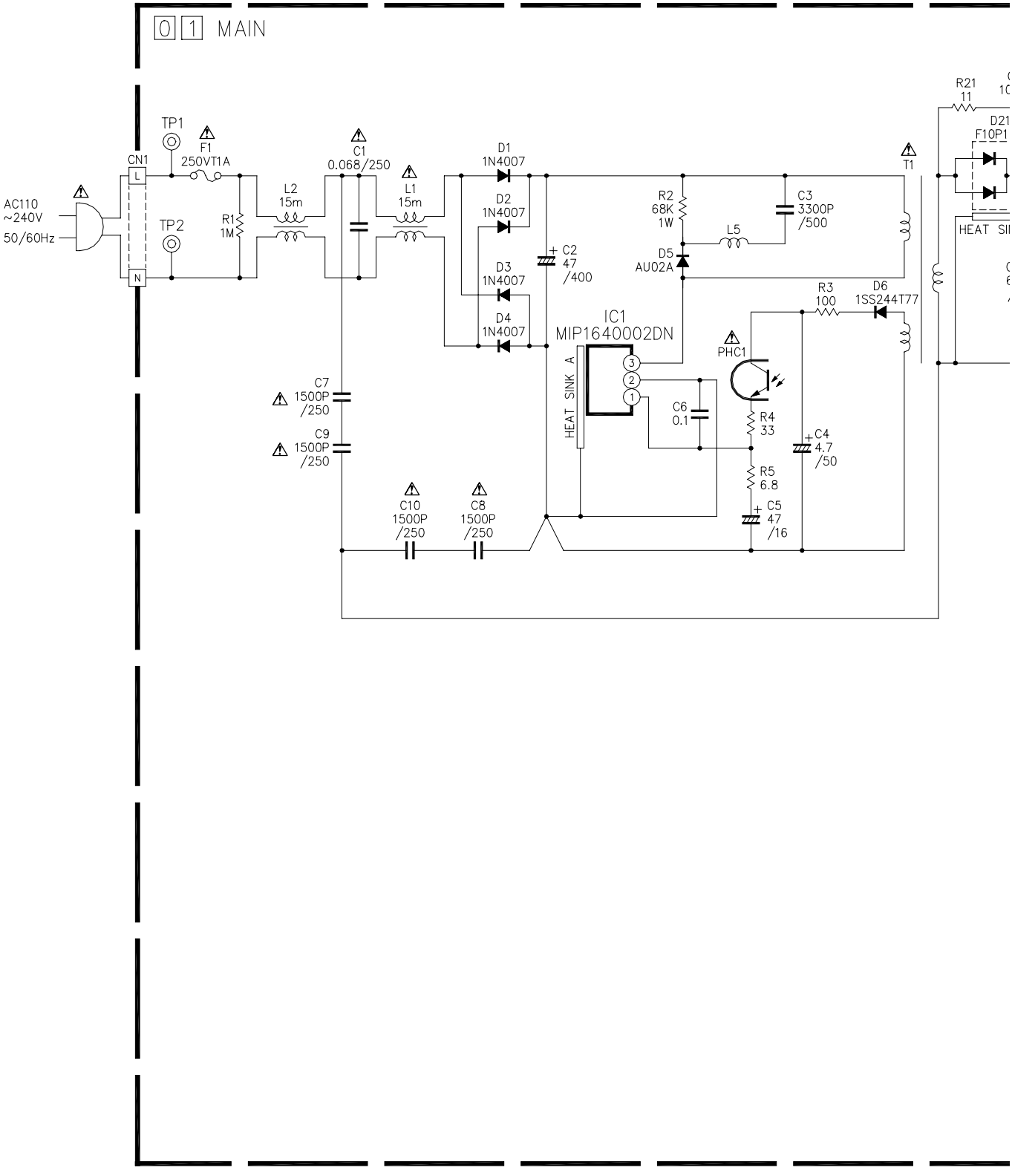
****

CABINET ASSEMBLY <M2>

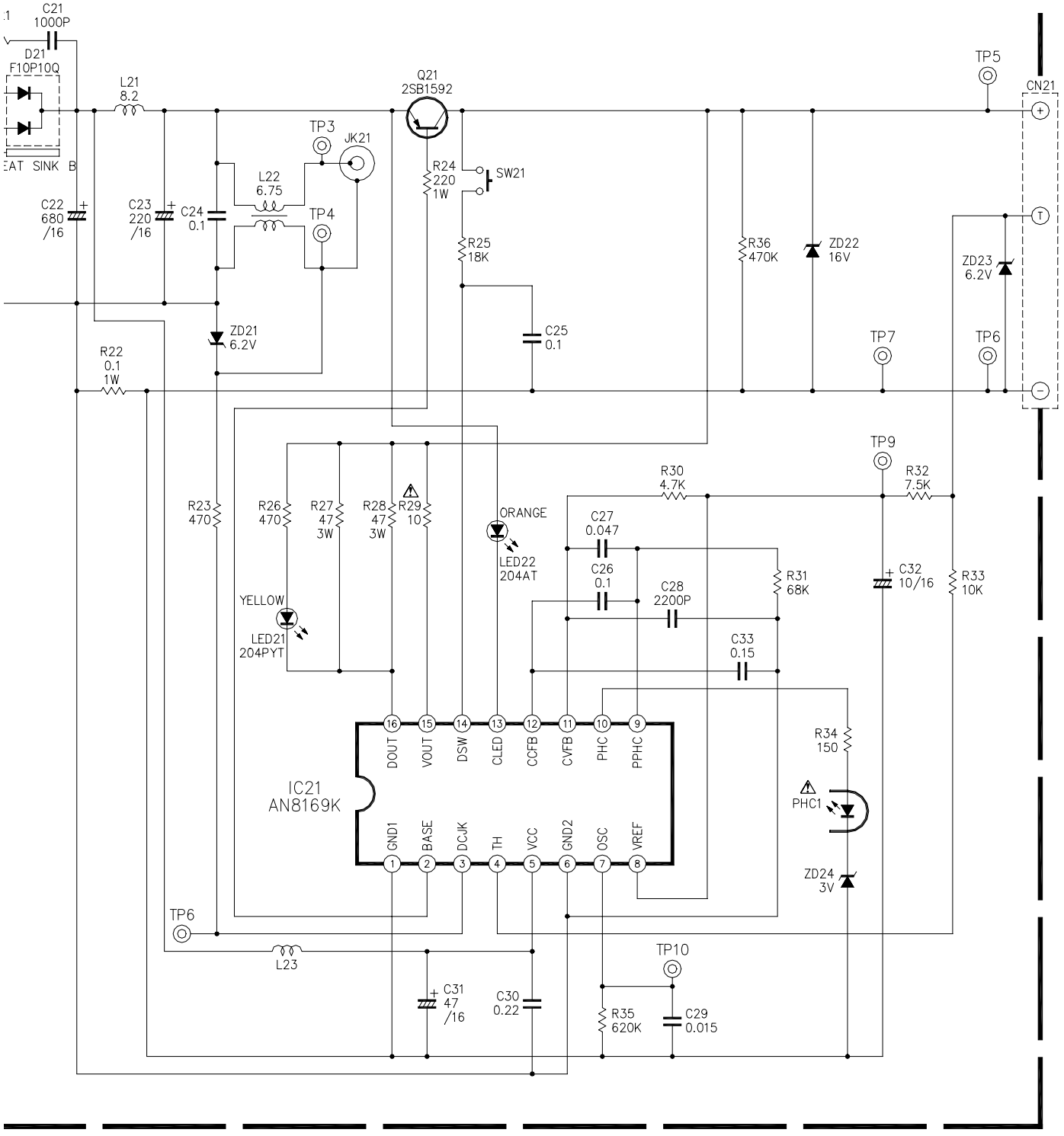
	1	PTY10067-003	UPPER CASE ASSY
	2	PTY10067-013	LOWER CASE
⚠	3	YQ10531-006	POWER CORD
	4	YQ10531-011	SCREW , X2
⚠	5	–	RATING LABEL

3. SCHEMATIC DIAGRAM

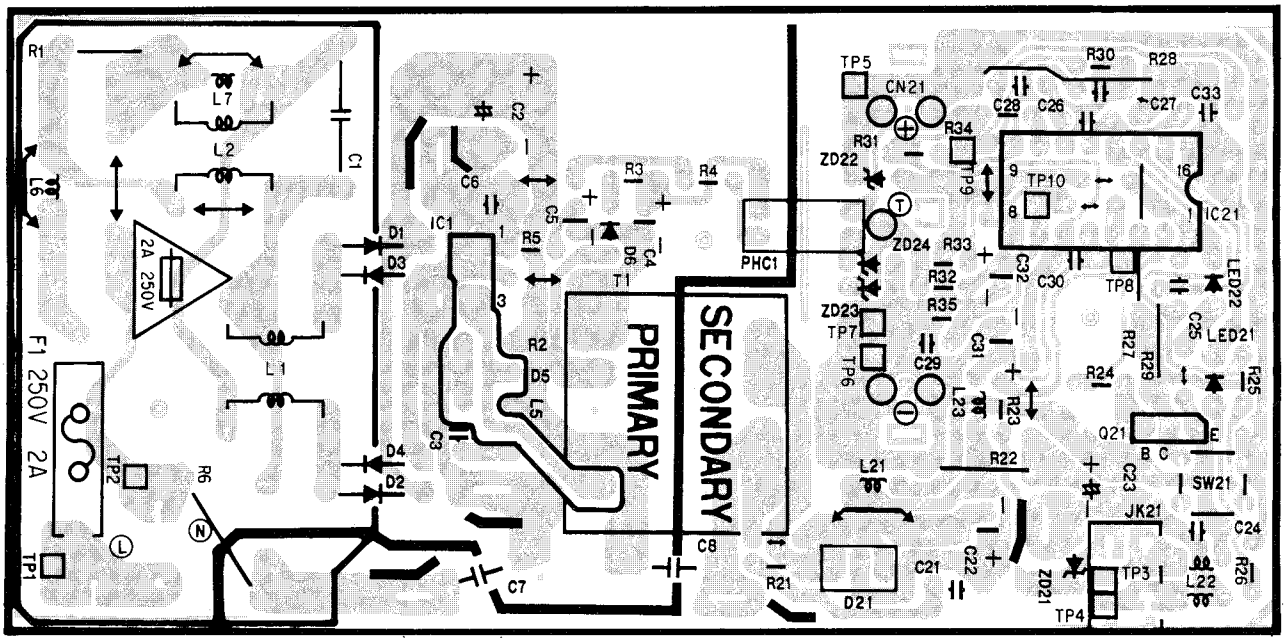
NOTE: ***When ordering parts, be sure to order according to the Part Number indicated in the Parts List.***



Safety precautions
The components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.



4. CIRCUIT BOARD



5. ELECTRICAL PARTS LIST

#REF No.	PART No.	PART NAME, DESCRIPTION	
**********			
		MAIN BOARD ASSEMBLY <01>	
⚠ PW1	PTY10067-502	MAIN BOARD ASSY	
IC1	MIP1640002DN	IC	
IC21	AN8169K	IC	
Q21	2SB1592	TRANSISTOR	
or	2SA1615	TRANSISTOR	
D1	1N4007	DIODE	
D2	1N4007	DIODE	
D3	1N4007	DIODE	
D4	1N4007	DIODE	
D5	AU02A	DIODE	
D6	1SS244T77	DIODE	
D21	MA7D61	DIODE	
ZD21	MA4062	ZENER DIODE	
ZD22	MA4160	ZENER DIODE	
ZD23	MA4062	ZENER DIODE	
ZD24	MA4030	ZENER DIODE	
LED21	YQ10531-543	LED	
LED22	YQ10531-541	LED	
R1	QRN141J-105	RESISTOR	1MΩ,1/4W
R2	QRL01DJ-683X	CMF RESISTOR	68kΩ,1W
R3	QRZ0125-101	RESISTOR	100Ω,1/4W
R4	QRZ0125-330	RESISTOR	33Ω, 1/4W
R5	QRZ0125-6R8	RESISTOR	6.8Ω,1/4W
R21	PTY20080-512	RESISTOR	11Ω,1/4W
R22	QRZ0192-R10X	MF RESISTOR	0.1Ω,1W
R23	QRZ0125-471	RESISTOR	470Ω,1/4W
R24	QRL01DJ-221X	CMF RESISTOR	220Ω,1W
R25	QRZ0125-183	RESISTOR	18kΩ,1/4W
R26	QRZ0125-471	RESISTOR	470Ω,1/4W
R27	QRL037J-470	CMF RESISTOR	47Ω,3W
R28	QRL037J-470	CMF RESISTOR	47Ω,3W
⚠ R29	QRZ9005-100	F RESISTOR	10kΩ,1/4W
R30	QRZ0125-472	RESISTOR	4.7kΩ,1/4W
R31	QRZ0125-683	RESISTOR	68kΩ,1/4W
R32	QRA141F-7501	MF RESISTOR	7.5kΩ,1/4W
R33	QRZ0125-103	RESISTOR	10Ωk,1/4W
R34	QRZ0125-151	RESISTOR	150Ω,1/4W
R35	QRA141F-6203	MF RESISTOR	620kΩ,1/4W
R36	QRZ0125-474	RESISTOR	470kΩ,1/4W
⚠ C1	YQ10626-401	F CAPACITOR	0.068μF,250V
C2	YQ10626-402	E CAPACITOR	47μF,400V
C3	YQ10626-403	CAPACITOR	3300pF,500V
C4	QWHA1HM-475	E CAPACITOR	4.7μF,50V
C5	YQ10626-404	E CAPACITOR	47μF,16V
C6	PTY10067-511	CAPACITOR	0.1μF,25V
⚠ C7	PTY10067-513	CAPACITOR	1500pF,250V
⚠ C8	PTY10067-513	CAPACITOR	1500pF,250V

#REF No.	PART No.	PART NAME, DESCRIPTION	
C21	YQ10626-408	CAPACITOR	1000pF,500V
C22	PTY20080-522	E CAPACITOR	680μF,16V
C23	QETA1CM-227	E CAPACITOR	220μF,16V
C24	PTY10067-511	CAPACITOR	0.1μF,25V
C25	PTY10067-511	CAPACITOR	0.1μF,25V
C26	QFVD1HJ-104	F CAPACITOR	0.1μF,50V
C27	QFVD1HJ-473	F CAPACITOR	0.047μF,50V
C28	QFLA1HJ-222	F CAPACITOR	0.0022μF,50V
C29	QFLA1HJ-153	F CAPACITOR	0.015μF,50V
C30	QFVD1HJ-224	F CAPACITOR	0.22μF,50V
C31	YQ10626-404	E CAPACITOR	47μF,16V
C32	QETA1CM-106	E CAPACITOR	10μF,16V
C33	QFVD1HJ-154	E CAPACITOR	0.15μF,50V
⚠ L1	PTY10067-522	LINE FILTER	
⚠ L2	PTY10067-522	LINE FILTER	
L5	PTY10067-521	FERRITE BEADS	
L21	PTY20080-533	CHOKE COIL	
L22	PTY20080-534	TROIDAL COIL	
L23	PTY10067-521	FERRITE BEADS	
⚠ PHC1	PC123YS	PHOTO COUPLER	
⚠ or	PS25611VM	PHOTO COUPLER	
⚠ or	PS25611VH	PHOTO COUPLER	
JK21	YQ10531-570	DC JACK	
⚠ T1	PTY20080-541	TRANS	
⚠ F1	PTY10067-101	FUSE	
SW21	PTY10067-531	SWITCH	
HS1	PTY10067-541	HEAT SINK A	
HS2	PTY10067-542	HEAT SINK B	
OT1	PTY10067-551	SCREW,X2	
TB1	PTY10067-561	TERMINAL 1,X2	
TB2	PTY10067-562	TERMINAL 2,X3	
HD1	PTY10067-571	TERMINAL HOLDER	
CN1	YQ 10531-506	COMVECTOR	

[redacted]

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Printed in Japan